

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	No. 4:19 CR 980 HEA
HAITAO XIANG,)	
)	
Defendant.)	
)	

GUILTY PLEA AGREEMENT

Come now the parties and hereby agree, as follows:

1. PARTIES:

The parties are the defendant Haitao Xiang, represented by defense counsel Vadim Glozman, and the United States of America (hereinafter “United States” or “Government”), represented by the Office of the United States Attorney for the Eastern District of Missouri, the Computer Crime and Intellectual Property Section of the Department of Justice, and the National Security Division of the Department of Justice. This agreement does not, and is not intended to, bind any governmental office or agency other than the United States Attorney for the Eastern District of Missouri, the Computer Crime and Intellectual Property Section of the Department of Justice, and the National Security Division of the Department of Justice. The Court is neither a party to nor bound by this agreement.

2. GUILTY PLEA:

Pursuant to Rule 11(c)(1)(A) and Rule 11(a)(2), Federal Rules of Criminal Procedure, in exchange for the defendant's voluntary plea of guilty to Count I of the charge, the government

agrees to move for the dismissal as to the defendant of Counts II through VIII at the time of sentencing. Moreover, the United States agrees that no further federal prosecution will be brought in this District relative to the defendant's theft of trade secrets and conspiracy to commit economic espionage from June 2015 through June 2017, of which the Government is aware at this time.

In addition, the parties agree that the U.S. Sentencing Guidelines Total Offense Level analysis agreed to by the parties herein is the result of negotiation and led, in part, to the guilty plea. The parties further agree that either party may request a sentence above or below the U.S. Sentencing Guidelines range (combination of Total Offense Level and Criminal History Category) ultimately determined by the Court pursuant to any chapter of the Guidelines and Title 18, United States Code, Section 3553(a). The parties further agree that notice of any such request will be given no later than ten days prior to sentencing and that said notice shall specify the legal and factual bases for the request.

The defendant also agrees, pursuant to the guilty plea to Count I, to forfeit to the United States all property subject to forfeiture under the applicable statute(s), including only the property listed and identified as part of the forfeiture allegation in the Indictment.

3. ELEMENTS:

As to Count I, the defendant admits to knowingly violating Title 18, United States Code, Section 1831(a)(5), and admits there is a factual basis for the plea and further fully understands that the elements of the crime are:

First: That the defendant knowingly agreed with at least one other person to commit any one of the following offenses:

(a) steal, without authorization appropriate, take, carry away, or conceal, or by fraud, artifice, or deception obtain a trade secret belonging to The Climate Corporation (TCC) and Monsanto, that being the Nutrient Optimizer, in violation of Title 18, United States Code, Section 1831(a)(1); or

(b) without authorization copy, duplicate, sketch, draw, photograph, download, upload, alter, destroy, photocopy, replicate, transmit, deliver, send, mail, communicate, or convey a trade secret belonging to TCC and Monsanto, that being the Nutrient Optimizer, in violation of Title 18, United States Code, Section 1831(a)(2); or

(c) receive, buy, and possess a trade secret, knowing the same to have been stolen or appropriated, obtained, or converted without authorization a trade secret belonging to Monsanto and TCC, that being the Nutrient Optimizer, in violation of Title 18, United States Code, Section 1831(a)(3);

Second: That one of the conspirators did an act to effect the object of the conspiracy; and

Third: That the defendant knew or intended that the offense would benefit a foreign government, foreign instrumentality, or foreign agent.

4. FACTS: The parties agree that the facts in this case are as follows and that the government would prove these facts beyond a reasonable doubt if the case were to go to trial. These facts may be considered as relevant conduct pursuant to Section 1B1.3:

The defendant, Haitao Xiang, is a citizen of the People's Republic of China (hereinafter the "PRC"). During relevant periods from 2008 through June 9, 2017, the defendant was an employee of The Climate Corporation ("TCC") and Monsanto, which acquired TCC in 2013.

Monsanto was headquartered in St. Louis, Missouri. While employed at TCC, the defendant worked as an Advanced Imaging Scientist.

The defendant is a citizen of the People's Republic of China (hereinafter the "PRC"). During relevant periods including 2008 through June 9, 2017, the defendant was an employee of Monsanto and its subsidiary, The Climate Corporation ("TCC"), headquartered in St. Louis, Missouri. While employed at Monsanto, the defendant worked as a Senior Research Applications Engineer. While employed at TCC, the defendant worked as an Advanced Imaging Scientist. Among other things, he was responsible for remote sensing work to estimate soil properties using satellite imagery. One of the projects the defendant worked on was the Nutrient Optimizer, which is a proprietary predictive algorithm to assist farmers in the optimal application of plant nutrients through the use of a web-based digital farming software platform. The defendant knew that the Nutrient Optimizer was a trade secret of TCC and Monsanto.

The defendant began his employment with Monsanto in 2008. He signed an employment agreement and acknowledged that the business possessed certain non-public confidential business information, including engineering designs, drawings, formulae, calculations, data, or similar technical or project-related information. He acknowledged that he would receive access to Confidential Information. The defendant agreed he would not, directly or indirectly, use (for himself or another) or disclose any Confidential Information for so long as it remained proprietary or protectable as confidential or trade secret information, except as may be necessary for the performance of his duties. Lastly, the defendant agreed that at the termination of his employment, without retaining any copies, he would deliver and return all documents and files (whether paper, digital, electronic or otherwise) that were supplied to him by his employer or that were obtained

or created pursuant to his duties for including all books, software, research, supplies and any other materials supplied to him by his employer.

The defendant knew, or believed, that the Nutrient Optimizer was a trade secret of TCC and Monsanto. The Nutrient Optimizer contributed to a particular application (“the application”). The application was one component of a web-based platform (“the platform”). TCC designed the platform to increase and improve agricultural productivity for farmers. The platform combined the latest weather data, soil information, and management information within a scientific model. The application allowed farmers to monitor the nutrient status of their fields and predict future application of fertilizer. Monsanto/TCC maintained the Nutrient Optimizer and the application within a computer system that required multiple factor login identification credentials, and limited access to the proprietary information to individuals who needed to access them to perform their employment duties. Employees, including the defendant, received annual training on the handling of Monsanto/TCC proprietary information. As shown below, Monsanto/TCC had offboarding policies for departing employees designed to ensure the return of all proprietary material. Monsanto/TCC spent time, effort, and resources developing the Nutrient Optimizer and application. The details of the development were not publicly shared. Instead, the development was in secret in order to eventually secure the value of the Nutrient Optimizer and the application in the marketplace. Beginning by at least mid-2015, while employed at Monsanto and TCC, the defendant began a series of communications with individuals from the PRC in which he discussed applying for a position of employment with the PRC and joining the Chinese Academy of Sciences (hereinafter “CAS”). The CAS is a ministry under the State Council of the PRC, which is the highest executive arm of power and administration in the PRC. One component of the CAS is the

Nanjing Institute of Soil Science (“NISS”). The NISS focuses on scientific agricultural development and ecological environmental development in China and is also a training base for senior researchers.

On June 2, 2015, the defendant sent an email from his TCC work email, hxiang@climate.com, to a NISS recruiter from the PRC. In the email, the defendant said:

Attached is my latest resume in English. Please review it when you have time and see if it is possible to recruit me to work at your Institute . . I have already discussed with several friends in China about running a company in China.

On June 11, 2015, during his communications with a NISS recruiter for the PRC, the defendant received an email in which the recruiter said:

Regarding the talent recruitment under the Hundred Talents Program, I have reported to the leaders of the Institute. The Institute leaders said the program met the positioning and development direction of the Institute and they intended to recruit the talent. However, the talent recruitment system at the Chinese Academy of Sciences is being reworked. . . . [T]he Institute leaders also indicated that they wanted to meet with you in person if the opportunity arises or if it works for you.

In an email sent on February 16, 2016, the defendant submitted his application to the CAS’s Hundred Talents Program. The Hundred Talents Program was launched in 1994 and was China’s first overseas oriented program to recruit high-level talent. The program is exclusively designed for cultivating scientific research personnel at CAS and focuses on attracting a younger talent pool. The primary goal of the program is to cultivate a group of leaders in their areas of specialty to work at various CAS organizations. Although focused on recruiting overseas Chinese, the Hundred Talents Program accepts applicants who are currently in China. These domestic-based applicants must demonstrate internationally-recognized expertise.

The defendant emailed a recruiter with the PRC and attached three files: “Award certificate received”; “Hundred Talent Program application material – Xiang Haitao-v2”; and “Hundred Talent Program – Work Plan – Xiang Haitao-v2”. The defendant requested the recruiter’s feedback regarding the use of the documents in his application for the Hundred Talents Program. In the application materials the defendant subsequently submitted, the defendant described the skills and work he would be able to offer the NISS. He listed the position he was applying for as “Manager for Precision Agriculture and Precise Fertilizer Application Technology R&D and Marketing.” The defendant wrote,

I have been the senior research fellow at US Monsanto Company since February 2008, mainly working on the research and application of large agricultural data, agricultural smart information system, agricultural spatio-temporal analysis models, crop phenotyping and monitoring, unmanned aerial vehicle agricultural remote sensing, hyperspectral remote sensing, agricultural sensor, etc. I led and completed many large scale internal research projects in Monsanto with a total funding of more than US \$2.5 million.

In the first paragraph of the field “Primary Research Directions and Thinking After Returning to China,” the defendant wrote:

Utilizing the relevant advantages afforded by the research, human capital, and resources of the Chinese Academy of Sciences [CAS] Institute of Soil Science, I plan to independently develop a smart digital agricultural fertilizer application management platform on the basis of big data. The goal of this platform will take “The Internet of Things, cloud computing, big data, intelligent analysis and decision-making, and information services” as its central technologies and “soil nutrient management and precision fertilizer application” as its target fields. This platform will create a world class precision fertilizer application solution, achieving rapid, low cost popularization and promotion.

In the field “Work Goals and Expected Contributions,” the defendant wrote:

I will establish an intelligent and digital agricultural fertilizer management platform based on big data. This will achieve soil nutrient management and precise fertilizer application informatization and intelligentization. After carrying out

demonstration applications and achievements and the platform is mature, it will be promoted throughout the rest of China.

In February 2016, the defendant downloaded the Nutrient Optimizer from Monsanto's computer systems to his work laptop computer. He also transferred the Nutrient Optimizer onto a Toshiba 32 Gigabyte Micro SD Card (hereinafter "Micro SD Card").

On March 14, 2016, the defendant conducted the following Google searches on a Monsanto computer: "company information to the third party;" "as evidence to accuse me;" "can use it to against me in future;" "I don't want it to be an evidence;" and "to be a piece of evidence that."

In April 2016, the defendant travelled from the United States to the PRC to meet recruiters from the Hundred Talents Program and to interview for a position with the NISS.

On August 18, 2016, the defendant received an email from a recruiter from the PRC attaching a notice that the defendant had been selected as a 2016 CAS Pioneer Hundred Talents Program Technical Talent.

On May 24, 2017, the defendant verbally notified Monsanto of his intent to resign from the company. The next day, the defendant submitted his letter of resignation. The defendant had an exit interview on June 9, 2017, which was the defendant's last day of employment at Monsanto. During his exit interview, the defendant signed an exit agreement and a TCC Termination Certification. In those documents, the defendant certified that he did not have in his possession, nor had he failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, documents or property, or copies and reproductions of such items belonging to TCC. During his exit interview, the defendant said that he returned all TCC and Monsanto property and that he had no storage devices with company information. The defendant said that he did not retain, and had no

TCC or Monsanto confidential business information, or property or copies of such materials on any devices or computers. He also stated that he did not have any Monsanto or TCC property physically or electronically stored in any location.

On April 29, 2017, the defendant purchased a one-way airline ticket to fly from Chicago to Toronto and then on to Shanghai. On June 10, 2017, the defendant travelled to O'Hare International Airport in Chicago, Illinois. As the defendant prepared to board his flight to Toronto, Department of Homeland Security-Customs and Border Patrol officers met him on the jetway. They conducted a search of his checked and carry-on luggage. During this inspection, the CBP officers detained several electronic devices, including a laptop computer. Subsequently, Federal law enforcement agents searched the laptop and located the Micro SD Card, which contained the Nutrient Optimizer, an 86-page document.

After departing the United States, the defendant worked as a Hundred Talents Program member for CAS and the PRC. The defendant operated a scientific lab at NISS that conducted agricultural research. By taking the Nutrient Optimizer from TCC, transferring it to the Micro SD Card, and attempting to take the Micro SD Card to the PRC, the defendant intended and knew that the trade secret would benefit the CAS, a foreign instrumentality and the PRC, a foreign government.

5. STATUTORY PENALTIES:

The defendant fully understands that the maximum possible penalty provided by law for the crime to which the defendant is pleading guilty is imprisonment of not more than 15 years, a fine of not more than \$5,000,000.00, or both such imprisonment and fine. The Court may also impose a period of supervised release of not more than three years.

6. U.S. SENTENCING GUIDELINES: 2018 MANUAL:

The defendant understands that this offense is affected by the U.S. Sentencing Guidelines and the actual sentencing range is determined by both the Total Offense Level and the Criminal History Category. The parties agree that the following are the applicable U.S. Sentencing Guidelines Total Offense Level provisions.

a. Chapter 2 Offense Conduct:

(1) Base Offense Level: The parties agree that the base offense level is 6, as found in Section 2B1.1.

(2) Specific Offense Characteristics: The parties agree that the following Specific Offense Characteristics apply:

The parties have not reached an agreement as to the loss associated with offense of conviction pursuant to Section 2B1.1(b)(1)). The parties intend to advocate at the time of sentencing as to the correct loss amount and the resulting offense level increase.

Four levels should be added pursuant to Section 2B1.1(b)(14) because the offense involved misappropriation of a trade secret and the defendant knew or intended – (B) that the offense would benefit a foreign government, foreign instrumentality, or foreign agent. If the court determines that the offense level is less than 14, the offense level will be increased to 14 by operation of section 2B1.1(b)(14).

b. Chapter 3 Adjustments:

(1) Acceptance of Responsibility: The parties agree that 2 levels should be deducted pursuant to Section 3E1.1(a), because the defendant has clearly demonstrated acceptance of responsibility and timely notified the government of the defendant's intention to plead guilty.

In addition, at the time of sentencing, the government expects to move for an additional 1 level deduction pursuant to Section 3E1.1(b) if the offense level is 16 or greater, and the defendant has clearly demonstrated acceptance of responsibility and timely notified the government of the defendant's intention to plead guilty. The parties agree that the defendant's eligibility for this deduction is based upon information presently known. If subsequent to the taking of the guilty plea the government receives new evidence of statements or conduct by the defendant which it believes are inconsistent with defendant's eligibility for this deduction, the government may present said evidence to the court, and argue that the defendant should not receive all or part of the deduction pursuant to Section 3E1.1, without violating the plea agreement.

(2) **Other Adjustments:** The parties agree that the following additional adjustments apply: None.

a. **Estimated Total Offense Level:** The parties have not reached an agreement as to the estimated Total Offense Level.

b. **Criminal History:** The determination of the defendant's Criminal History Category shall be left to the Court. Either party may challenge, before and at sentencing, the finding of the Presentence Report as to the defendant's criminal history and the applicable category. The defendant's criminal history is known to the defendant and is substantially available in the Pretrial Services Report.

c. **Effect of Parties' U.S. Sentencing Guidelines Analysis:** The parties agree that the Court is not bound by the Guidelines analysis agreed to herein. The parties may not have foreseen all applicable Guidelines. The Court may, in its discretion, apply or not apply any Guideline

despite the agreement herein and the parties shall not be permitted to withdraw from the plea agreement.

7. WAIVER OF APPEAL AND POST-CONVICTION RIGHTS:

a. Appeal: The defendant has been fully apprised by defense counsel of the defendant's rights concerning appeal and fully understands the right to appeal the sentence under Title 18, United States Code, Section 3742.

(1) Non-Sentencing Issues: The parties waive all rights to appeal all non-jurisdictional, non-sentencing issues, including, but not limited to, any issues relating to discovery, the guilty plea, the constitutionality of the statute(s) to which defendant is pleading guilty and whether defendant's conduct falls within the scope of the statute(s). Pursuant to Federal Rule of Criminal Procedure 11(a)(2), the defendant reserves his right to appeal the Court's denial of the defendant's pretrial motion to suppress evidence and reserves his right to withdraw his guilty plea if the Court's denial of the motion to suppress is reversed on appeal. The government agrees that the defendant has reserved his right to appeal as described in paragraph 7(a)(1).

(2) Sentencing Issues: In the event the Court accepts the plea, then, as part of this agreement, the defendant hereby waives all rights to appeal all sentencing issues other than (a) the Court's determination of the applicable Sentencing Guidelines, including loss amount, and the resulting applicable Sentencing Guidelines range; (b) Criminal History, but only if it affects the Base Offense Level or Criminal History Category and (c) the substantive reasonableness of a sentence imposed above the Sentencing Guidelines range as determined by the Court or the imposition of any fine. Similarly, the Government hereby waives all rights to appeal all sentencing issues other than (a) the Court's determination of loss amount and the applicable Sentencing

Guidelines range; (b) the substantive reasonableness of either a fine or sentence imposed below the Sentencing Guidelines range as determined by the Court; and (c) Criminal History, provided the Court accepts the plea.

b. Habeas Corpus: The defendant agrees to waive all rights to contest the conviction or sentence in any post-conviction proceeding, including one pursuant to Title 28, United States Code, Section 2255, except for claims of prosecutorial misconduct or ineffective assistance of counsel.

8. OTHER:

a. Disclosures Required by the United States Probation Office: The defendant agrees to truthfully complete and sign forms as required by the United States Probation Office prior to sentencing and consents to the release of these forms and any supporting documentation by the United States Probation Office to the government.

b. Civil or Administrative Actions not Barred; Effect on Other Governmental Agencies: Nothing contained herein limits the rights and authority of the United States to take any civil, tax, immigration/deportation or administrative action against the defendant.

c. Supervised Release: Pursuant to any supervised release term, the Court will impose standard conditions upon the defendant and may impose special conditions related to the crime defendant committed. These conditions will be restrictions on the defendant to which the defendant will be required to adhere. Violation of the conditions of supervised release resulting in revocation may require the defendant to serve a term of imprisonment equal to the length of the term of supervised release, but not greater than the term set forth in Title 18, United States Code,

Section 3583(e)(3), without credit for the time served after release. The defendant understands that parole has been abolished.

d. Mandatory Special Assessment: Pursuant to Title 18, United States Code, Section 3013, the Court is required to impose a mandatory special assessment of \$100 per count for a total of \$100.00, which the defendant agrees to pay at the time of sentencing. Money paid by the defendant toward any restitution or fine imposed by the Court shall be first used to pay any unpaid mandatory special assessment.

e. Possibility of Detention: The defendant may be subject to immediate detention pursuant to the provisions of Title 18, United States Code, Section 3143.

f. Fines, Restitution and Costs of Incarceration and Supervision: The Court may impose a fine, restitution (in addition to any penalty authorized by law), costs of incarceration and costs of supervision. Pursuant to Title 18, United States Code, Section 3663A, an order of restitution is mandatory for all crimes listed in Section 3663A(c). Regardless of the Count of conviction, the amount of mandatory restitution imposed shall include all amounts allowed by Section 3663A(b) and the amount of loss agreed to by the parties, including all relevant conduct loss. The defendant agrees to provide full restitution to all victims of all charges in the indictment.

g. Forfeiture: The defendant agrees the stipulated facts above are sufficient to support forfeiture of certain assets pursuant to the applicable forfeiture authorities. Defendant specifically agrees to the forfeiture of the items identified in the forfeiture allegation contained in the Indictment. The defendant agrees the Court may enter a consent preliminary order of forfeiture any time before sentencing, and such Order will become final as to the defendant when it is issued and will be part of the sentence. The defendant agrees not to object to any administrative, civil or

criminal forfeiture brought against any assets subject to forfeiture. The defendant will execute any documents and take all steps needed to transfer title or ownership of said assets to the government and/or to rebut the claims of nominees and/or alleged third party owners. The defendant knowingly and intelligently waives all constitutional and statutory challenges to any forfeiture carried out in accordance with this plea agreement, including but not limited to that defendant was not given adequate notice of forfeiture in the charging instrument.

9. ACKNOWLEDGMENT AND WAIVER OF THE DEFENDANT'S RIGHTS:

In pleading guilty, the defendant acknowledges, fully understands and hereby waives his rights, including but not limited to: the right to plead not guilty to the charges; the right to be tried by a jury in a public and speedy trial; the right to file pretrial motions, including motions to suppress or exclude evidence; the right at such trial to a presumption of innocence; the right to require the government to prove the elements of the offenses against the defendant beyond a reasonable doubt; the right not to testify; the right not to present any evidence; the right to be protected from compelled self-incrimination; the right at trial to confront and cross-examine adverse witnesses; the right to testify and present evidence and the right to compel the attendance of witnesses. The defendant further understands that by this guilty plea, the defendant expressly waives all the rights set forth in this paragraph.

The defendant fully understands that the defendant has the right to be represented by counsel, and if necessary, to have the Court appoint counsel at trial and at every other stage of the proceeding. The defendant's counsel has explained these rights and the consequences of the waiver of these rights. The defendant fully understands that, as a result of the guilty plea, no trial

will, in fact, occur and that the only action remaining to be taken in this case is the imposition of the sentence.

The guilty plea will impact defendant's immigration status or result in deportation. In particular, if any crime to which defendant is pleading guilty is an "aggravated felony" as defined by Title 8, United States Code, Section 1101(a)(43), removal or deportation is presumed mandatory. Defense counsel has advised the defendant of the possible immigration consequences, including deportation, resulting from the plea.

10. VOLUNTARY NATURE OF THE GUILTY PLEA AND PLEA AGREEMENT:

This document constitutes the entire agreement between the defendant and the government, and no other promises or inducements have been made, directly or indirectly, by any agent of the government, including any Department of Justice attorney, concerning any plea to be entered in this case. In addition, the defendant states that no person has, directly or indirectly, threatened or coerced the defendant to do or refrain from doing anything in connection with any aspect of this case, including entering a plea of guilty.

The defendant acknowledges having voluntarily entered into both the plea agreement and the guilty plea. The defendant further acknowledges that this guilty plea is made of the defendant's own free will and that the defendant is, in fact, guilty.

11. CONSEQUENCES OF POST-PLEA MISCONDUCT:

After pleading guilty and before sentencing, if defendant commits any crime, other than minor traffic offenses, violates any condition of release that results in revocation, violates any term of this guilty plea agreement, intentionally provides misleading, incomplete or untruthful information to the U.S. Probation Office or fails to appear for sentencing, the United States, at its

option, may be released from its obligations under this agreement. The Government may also, in its discretion, proceed with this agreement and may advocate for any sentencing position supported by the facts, including but not limited to obstruction of justice and denial of acceptance of responsibility.

12. NO RIGHT TO WITHDRAW GUILTY PLEA:

Pursuant to Rule 11(c) and (d), Federal Rules of Criminal Procedure, the defendant understands that there will be no right to withdraw the plea entered under this agreement, except (1) where the Court rejects those portions of the plea agreement which deal with charges the government agrees to dismiss or not to bring and (2) as described herein, the defendant reserves his right to withdraw his guilty plea if the Court's denial of the motion to suppress is reversed on appeal.

Date

**MATTHEW
DRAKE**

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DRAKE
Date: 2022.01.05 14:55:06 -06'00'

Matthew T. Drake – 46499MO
Assistant United States Attorney

Date

**GWENDOLYN
CARROLL**

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Date: 2022.01.05 14:53:31 -06'00'

Gwendolyn E. Carroll– NY4657003
Assistant United States Attorney

1/4/2022
Date

Haitao Xiang

Haitao Xiang
Defendant

1/3/2022
Date

Vadim A. Glozman

Vadim Glozman
Attorney for Defendant